

ZMKD21-61SCM Series Hall Current Sensor

Hall current sensor uses Hall effect principle to measure DC, AC, pulse and various irregular waveform currents under the condition that the original and secondary sides are completely isolated.



RoHS



Feature

- Hall effect measurement principle
- Meet UL94-V0 standard

Advantage

- Easy to install
- Low power consumption
- Wide measuring range
- High precision and good linearity
- Low temperature drift
- Strong anti-interference ability
- Strong overload capability

Application

- AC frequency conversion speed control device
- DC motor driven static converter
- UPS uninterruptible power supply
- SMPS Switched Mode Power Supplies
- Electric welder machine
- Grid monitoring
- Industrial grade

Performance parameter

Electrical parameters

Rated current rms	I_{pn}	50A	100A	200A	300A	400A	600A
Measuring range	I_{pm}	50A	100A	200A	300A	400A	600A
Rated output @ I_p @ $I_p=0$	V_o	$2.5 \pm (2 \cdot I_p / I_{pn}) V$ 2.5V					
Load Resistance	R_L	$>2K\Omega$					
Supply Voltage	U_c	+5V					
Current consumption	I_c	$\leq 15mA$					
Insulation voltage	V_d	2.5kVAC/50Hz/1min					

Dynamic parameter

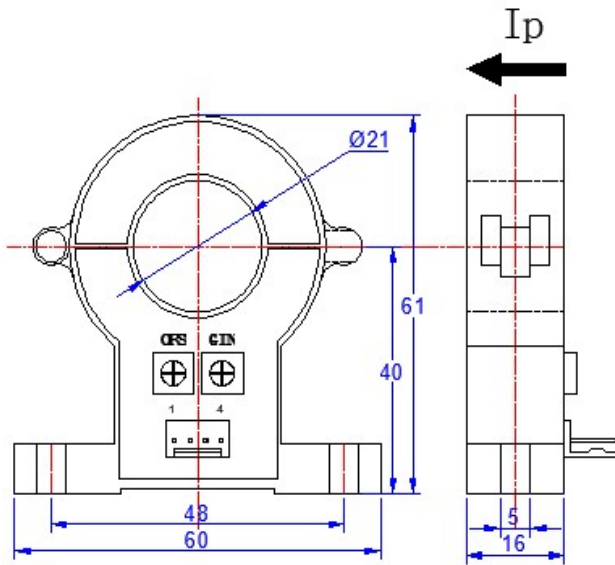
Precision (@ $I_{pn}, T_a=25^\circ C$)	X_G	$< \pm 1.0\%$					
Linearity (@ $T_a=25^\circ C$)	E_r	$< \pm 1.0\%FS$					
Zero offset voltage (@ $T_a=25^\circ C, I_p=0$)	V_{0E}	$< \pm 25mV$					
Magnetic offset voltage($I_{pn}>0$)	V_{0H}	$< \pm 20mV$					
Zero temperature drift	TCV_{0E}	$< \pm 1.0mV/^\circ C$					
Response time	T_r	$< 3\mu s$					
Accurately followed	di/dt	$> 100A/\mu s$					
Frequency bandwidth (@-3dB)	BW	DC~20kHz					

General parameters

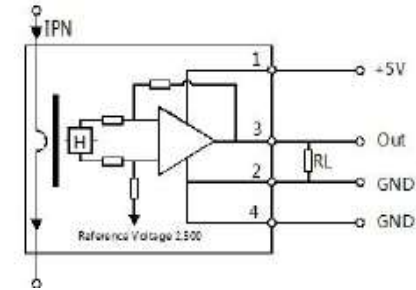
Ambient operating temperature	T_a	$-40 \sim +85^\circ C$					
Ambient storage temperature	T_s	$-55 \sim +125^\circ C$					
Weight	m	70g					
Case material		PBT G30/G15 UL94-V0					
Executive standard		EN50178:1998 IEC60950-1:2001 SJ20790-2000					

structure

Unit: mm



Instructions



1. The direction of the current should be the same as the direction of the arrow of the casing;
2. Please refer to the wiring definition on the physical shell, the wrong wiring will damaged module;
3. In order to obtain better dynamic characteristics and sensitivity, it is recommended to use a single turn wire and the wire fills the module through the wire hole best;
4. The primary side wire temperature should not exceed 100 °C;
5. The above parameters are standard specifications, and the products can be customized according to customer needs.